I CLAIM:

 A method of determining an effective method for control of soil pathogens in a soil comprising the steps of:

measuring the pH of a soil;

measuring the organic carbon content of said soil;

measuring the buffering capacity of said soil;

adding a nitrogen containing material and a pH reducing agent to reduce soil pH below 5.5 when said buffering capacity is below 2 uL $\rm H_2SO_4$ g/soil; and

adding a nitrogen containing material and a pH raising agent to raise said pH above 8.5 when said organic carbon content is less than 1.7% by weight.

- A method of controlling soilborne pathogens in a soil having an organic carbon content less than 1.7% by weight, comprising the step of adding a nitrogen containing material and a pH raising agent to raise soil pH above 8.5.
- 3. The method of Claim 17 wherein said nitrogen containing material is selected from a group consisting of animal manures, sewage sludge, animal by-products, chitinaceous materials, oil- seed materials, urea, NH_ax and xNO₂ compounds.
- The method of Claim 17 wherein said nitrogen containing material is a meat and bone material.